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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,357

05/23/2006

Harald Baumann

90045/JLT

1714

1333 7590 10/27/2008
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EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

10/27/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,357	Applicant(s) BAUMANN ET AL.	
	Examiner /Susan W. Berman/	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-19 and 21 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 7 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5-23-06</u> . | 6) <input type="checkbox"/> Other: ____. |

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Claim Objections

Claims 7 and 21 are objected to because of the following informalities: Formula (VII) is incorrect because there is an extra "H" bonded to -OH that should be bonded to the -N-. See formula (VII) on page 11 of the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The use of the word "obtainable" instead of "obtained" renders the claim indefinite because it does not clearly recite that the imaged element is obtained by the process set forth.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-11 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0186165 in view of DD 287,796 A.

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US '165 discloses a composition in Example 8 that comprises component "C" which is a reaction product from 2,2,4-trimethyl hexamethylenediisocyanate, 2-hydroxyethyl methacrylate and 2-(2-hydroxyethyl)-piperidine corresponding to applicant's photopolymerizable compound (a), a 2,2,4,4,5,5 hexaarylbiimidazole initiator and coumarin sensitizer. No metallocene is present in Example 8. The sensitizers disclosed in US '165 are optical brighteners that absorb light having a wavelength between 300 and 450 nm, such as coumarins, benzoxazoles, bisphenylbenzoxazoles or triazinyl derivatives [0008]. The difference from the instantly claimed composition is that US '165 does not teach using a 1,4-dihydropyridine derivative or a tri-aryl oxazole compound of formula (II) set forth in claim 1 as an sensitizing optical brightening agent.

DD '796 discloses 1,4-dihydropyridine derivatives of formula (I) and advantages from using them in analogous compositions. The compounds are said to sensitize polymerizable materials for producing printing plate precursors in the 310-420 nm wavelength range.

It would have been obvious to one skilled in the art at the time of the invention to substitute the 1,4-dihydropyridine sensitizers disclosed by DD '796 for the sensitizer in the compositions, such as the composition of Example 8, disclosed by US '165. US '165 teaches adding sensitizers that absorb wavelengths from 300 to 450 nm. DD '796 teaches that 1,4,-dihydropyridines absorb wavelengths from 310-420 nm and are useful sensitizers for polymerizable materials analogous to those taught by US '165. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation that the dihydropyridine sensitizers disclosed by DD '796 would sensitize the composition taught by US '165 because of their sensitivity within the wavelength range desired. One skilled in the art at the time of the

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invention would have been further motivated to employ dihydropyridines with a reasonable expectation of providing the advantages taught by DD '796.

The comparative data in the instant specification has been considered and found unpersuasive for the following reason. Applicant's Comparative Example 8 uses a coumarin sensitizer (sensitizer 6) with a triphenylmethyl phosphonium initiator (co-initiator 6), so it is close to, but not representative of, the teaching of US '165. Therefore, there is no comparative data of record representing the closest known prior art (i.e. US '165) that shows unexpected results obtained when the instantly claimed sensitizer is employed.

Claims 3, 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0186165 in view of DD 287,796 A, as applied to claims 1, 2, 5-11,13-19 above, and further in view of Hasagawa (3,686,371). US '165 does not teach adding a copolymerizable "P-OH" compound as set forth in instant claims 3, 4 and 21. Hasagawa teaches a method for producing a copolymerizable compound corresponding to applicant's "P-OH" compound. Hasagawa teaches that the phosphoric acid esters provide superior anti-corrosion, excellent adhesion, fire-retarding and low temperature curing in coating compositions.

It would have been obvious to one skilled in the art at the time of the invention to add a polymerizable phosphoric acid ester, as taught by Hasagawa, to the composition taught by US '165 in combination with DD '796. US '165 teaches that additional (meth)acrylate functional monomers can be employed in the disclosed compositions. Hasagawa teaches several advantages of the phosphoric acid methacrylates in coating compositions that would be advantageous in the compositions taught by the primary references, such as excellent adhesion and corrosion

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resistance. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of obtaining compositions having advantageous properties for printing plates.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11, 13-19 and 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/544758 [US 2006/0234155], now allowed, in view of US 2003/186165. The claims of ‘758 recite an oxazole sensitizer of the same formula as set forth in the instant claims, many of the same co-initiators and ethylenically unsaturated monomers, oligomers or polymers. The difference from the instant claims is that the claims of US ‘758 do not set forth the specific ethylenically unsaturated compound set forth as component (a) in the instant claims. US ‘165

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discloses compositions comprising analogous co-initiators and sensitizers and teaches ethylenically unsaturated compounds obtained by reaction of polyisocyanates, an ethylenically unsaturated hydroxy group-containing compound and an organic compound with an NH group and an OH group corresponding to applicant's component (a). It would have been obvious to one skilled in the art at the time of the invention to employ the ethylenically unsaturated compound disclosed by US '165 as the photopolymerizable compound (a) in the claims of US '758, as taught by US '165 in analogous art. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of successfully providing a radiation sensitive composition.

This is a provisional obviousness-type double patenting rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,567,761 discloses urethane (meth)acrylates and dihydropyridines.

EP 0 534 005 A1 discloses electrophotographic recording material comprising a conductive substrate and a photosensitive layer comprising a 2,4,5-triphenyl oxazole having a high p-type charge capacity. EP '005 teaches that the compounds provide electrophotographic recording systems with low fatigue and high photosensitivity. Various binder resins are taught, including (meth)acrylates, with polyester preferred.

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Kneafsey (5,506,326) discloses an air-activatable polymerizable composition comprising a free radically polymerizable monomer, an autooxidizable dihydropyridine, an onium salt and a soluble ionic salt. See the preferred dihydropyridine of formula (iv) in column 5, lines 1-50.

Abele et al (4,243,741) disclose a negative-working tonable photosensitive element comprising a support and a photosensitive composition comprising a thermoplastic binder, a dihydropyridine compound and a hexaarylbiimidazole compound. The thermoplastic binders, such as acrylic polymers, are taught in column 3, lines 42-62. Abele et al teach exposure to a wavelength range of 300 to 400 μ and that measures to exclude oxygen are not necessary when using the disclosed compositions (column 5, lines 11-16 and 27-32).

The following references are cited as art of interest. These references are not prior art to the instant claims: DE 2004 022 137 B3, WO 2007/135894 A1, WO 2004/111731 A1, US 2007/0148583 A1, US 7,183,039, US 7,175,949.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067.

The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
10/21/2008

/Susan W Berman/
Primary Examiner
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